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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,180	12/05/2001	Amir Satran	10236-039	3617
26158	7590	01/06/2005	EXAMINER	
WOMBLE CARLYLE SANDRIDGE & RICE, PLLC P.O. BOX 7037 ATLANTA, GA 30357-0037			PETERSON, KENNETH E	
			ART UNIT	PAPER NUMBER
			3724	
DATE MAILED: 01/06/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/002,180	SATRAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kenneth E Peterson	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 November 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-27 is/are pending in the application.  
 4a) Of the above claim(s) 8,12-15,18-20 and 23-25 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-7,9-11,16,17,21,22,26 and 27 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

1. Applicant's withdrawing of claims 8,12-15,18-20 and 23-25 is noted with appreciation. The chance of confusion and error is now markedly decreased in this case.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11,16,17,21,22,26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larose '783, who shows a cutting disk (83) having pockets (between blocks 55). Mounted in said pockets are indexable inserts (1) having all of the recited faces and cutting edges. Each of the inserts symmetrically overhangs the disk, as seen in figure 4.

Larose's inserts contact the pocket rear along a surface, as opposed to two spaced abutments. Examiner takes Official Notice that it is well known to employ two spaced apart abutments to properly align a cutting insert. An example of this is seen in Lundblad '366 (read column 1 for Lundblad's motivation). It would have been obvious to one of ordinary skill in the art to have modified Larose by having the cutting insert contact the rear pocket surface at two spaced apart abutments, as is well known and taught by Lundblad, in order to more accurately align the cutting insert.

4. Claims 1-7,9-11,16,17,21,22,26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satran (WO 00/02693).

Satran shows in figure 6a a cutting tool have most of the recited limitations including the radially extending pocket rear. Figure 6b shows the two-point support of the insert and the pocket rear. Figure 4 shows that the insert is thicker in the middle. Figure 3 shows the outward cutting edges (30) extending inwardly, and the middle cutting edge (32) being arcuate.

In regards to at least claims 1-7 and 10, Satran's insert has cutting edges on only two sides, as opposed to all four. However, Examiner takes Official Notice that it is common for inserts to have cutting edges on all four sides. An example of such can be seen in Satran (5,718,540). Dozens of other patents also have this teaching. It would have been obvious to one of ordinary skill in the art to have modified Satran by having cutting edges on all four corners, as is well known, in order to have two additional cutting edges to shift to, thus reducing costs by doubling the life of the insert.

In regards to at least claims 7,9-11,16,17,21,22,26 and 27, Satran's inserts alternate left and right positions. However, Examiner takes Official Notice that it is old and well known for the insert to overhang the disk on both sides. This is done for a number of reasons. In situations where only one corner area of the bit is cutting, the bits are often overhung on both sides so that the entire disk can be flipped to expose the new cutting corner areas. An example of this is the patent to Aspinwall '409. Another reason this is done is when there is a desire to do fine machining, such as cutting narrow slots that would not have room for left-and-right alternating inserts. An

example of this is the patent to Olson '050. Other advantages are the reduces chances of vibration, as opposed to left-and-right set inserts, which can create cyclically alternating left and right vibrational forces.

5. Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that it would not have been obvious to have modified Satran (WO 00/02693) to have four cutting edges. The declaration of Mr. Satran has been read and it is understood that it is undesirable to have a four-sided cutter in a pocket with a lateral abutment surface like in Satran '693. However, the prior art to Larose, Olson and Aspinwall show that it is known to employ similar inserts in an axially centered position with no lateral abutment. With Satran '693 modified to have axially centered inserts with no lateral abutment, the argument against making it a four-sided cutter no longer has merit.

Applicant argues that it is not obvious to have both edges of the insert overhang the disk. This argument is rendered moot by the new rejection to Larose.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson whose telephone number is 571-272-4512. The examiner can normally be reached on Monday thru Thursday between 7am and 5pm.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514.

kp  
January 5, 2005

  
KENNETH E. PETERSON  
PRIMARY EXAMINER